Attorney Docket No.: MGU-0025
Inventors: Damha et al.

Serial No.: 10/748,475

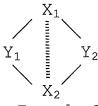
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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A composition for inhibiting the RNase H activity of a retroid virus reverse transcriptase comprising an inhibitory agent of Formula I:



Formula I

wherein,

 X_1 and X_2 are antiparallel complementary oligonucleotide strands that associate to form a duplex;

 X_1 is 2 to 24 nucleotides in length;

 X_2 is 2 to 24 nucleotides in length;

 Y_1 is 0 to 8 nucleotides in length;

 Y_2 is 0 to 8 nucleotides in length;

at least one of Y_1 or Y_2 is 4 to 8 nucleotides in length;

 Y_1 and Y_2 each independently contain a ribonucleic acid; 2',5'-linked ribonucleic acid; or combination thereof wherein a Y_1 or Y_2 of at least 4 nucleotides comprises the sequence 5'-UUYG-3'/2' (SEQ ID NO:1); and

 X_1 or X_2 are comprised of an arabinonucleic acid; a 2'-fluoro-arabinonucleic acid; a locked nucleic acid; a 2'-fluoro-ribonucleic acid; a peptide nucleic acid; or a combination thereof,

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wherein the inhibitory agent binds to the RNase H domain of retroid virus reverse transcriptase thereby inhibiting the RNase H activity thereof.

Claim 2 (canceled).

Claim 3 (original): A composition of claim 1, wherein X_1 and X_2 of Formula I are comprised of 3',5'-linked ribonucleic acid.

Claim 4 (original): A composition of claim 1, wherein X_1 and X_2 of Formula I are comprised of deoxyribonucleic acid.

Claim 5 (original): A composition of claim 1, wherein X_1 and X_2 of Formula I are comprised of a combination of 3',5'-linked ribonucleic acid and deoxyribonucleic acid.

Claim 6 (original): A composition of claim 1, wherein X_1 and X_2 of Formula I are 3',5'-linked ribonucleic acid and are 4 to 10 nucleotides in length.

Claim 7 (original): A composition of claim 1, wherein Y_1 and Y_2 are a 3',5'-linked tetraribonucleotide of the sequence 5'-UUYG-3' (SEQ ID NO:1).

Claim 8 (original): A composition of claim 1, wherein said composition is a cyclic structure.

Claims 9-10 (canceled).